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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,897	03/19/2001	Kiyoshi Yamaura	09792909-4813	7625

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EXAMINER

YUAN, DAH WEI D

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 01/02/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

485

**Office Action Summary**

Application No.

09/811,897

Applicant(s)

YAMAMUA

Examiner

Dah-Wei D. Yuan

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_

**NON-AQUEOUS ELECTROLYTE CELL**

Examiner: Yuan

S.N. 09/811,897

Art Unit: 1745

December 28, 2002

***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Objections***

2. Claim 5 is objected to because of the following informalities:

The recitation of "electrolyte" in line 1 should read "solvent" instead. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Negoro (US 6,232,021 B1).

Negoro teaches a non-aqueous electrolyte battery comprising a positive electrode, a negative electrode and a non-aqueous electrolyte interposed between the positive and negative electrode. The positive electrode active material includes  $\text{Li}_x\text{MnO}_2$  wherein  $x=0.7$  to  $1.2$ . The electrolytic solution comprises an appropriately mixed solvent of ethylene carbonate, propylene carbonate, 1,2-dimethoxyethane, dimethyl carbonate, and/or diethyl carbonate and salts of at least one of  $\text{LiCF}_3\text{SO}_3$ ,  $\text{LiClO}_4$ ,  $\text{LiBF}_4$  and  $\text{LiPF}_6$ . See Column 58, Lines 26-40; Column 63, Lines 11-15. With respect to claim 2, it is the position of the examiner that such spatial group is inherent, given that the compound in both Negoro and the present application having similar chemistry. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature *is necessarily present in that which is described in the reference*. In re Robertson, 49 USPQ2d 1949 (1999).

5. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kihira et al. (US 6,316,147 B1).

Kihira et al. teach a non-aqueous electrolyte battery comprising a positive electrode, a negative electrode and a non-aqueous electrolyte interposed between the positive and negative electrode. The positive electrode active material includes  $\text{Li}_x\text{MO}_2$  wherein  $x=0.05$  to  $1.1$  and M is selected from the group consisting of Co, Ni and Mn. The electrolytic solution comprises an appropriately mixed solvent of ethylene carbonate or propylene carbonate with dimethyl carbonate or diethyl carbonate and salts of at least one of  $\text{LiCF}_3\text{SO}_3$ ,  $\text{LiClO}_4$ ,  $\text{LiBF}_4$  and  $\text{LiPF}_6$ . See Column 6, Lines 10-67. With respect to claim 2, it is the position of the examiner that such

spatial group is inherent, given that the compound in both Kihira et al. and the present application having similar chemistry. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature *is necessarily present in that which is described in the reference*. In re Robertson, 49 USPQ2d 1949 (1999).

6. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Dahn et al. (US 6,168,887 B1).

Dahn et al. teach a non-aqueous electrolyte battery comprising a positive electrode, a negative electrode and a non-aqueous electrolyte interposed between the positive and negative electrode. The positive electrode active material includes  $\text{Li}_x(\text{Mn}_{1-y}\text{M}_y)\text{O}_{2+z}$  wherein  $0.5 < x < 1.3$ ,  $y$  is  $0 \leq y < 0.4$ ,  $z$  is  $-0.5 < z < 0.5$  and  $M$  is a 3d transition metal, aluminum or lithium and admixtures thereof. In one embodiment, 1M of  $\text{LiPF}_6$  in 33% ethylene carbonate (EC) and 67% diethyl carbonate (DEC) is used as the electrolyte. See Column 3, Lines 25-20; Example 4. With respect to claim 2, it is the position of the examiner that such spatial group is inherent, given that the compound in both Dahn et al. and the present application having similar chemistry. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature *is necessarily present in that which is described in the reference*. In re Robertson, 49 USPQ2d 1949 (1999).

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***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thackeray et al. (US 5,316,877) teach a non-aqueous electrolyte cell comprising a spinel-type positive electrode material having a formula of  $\text{LiD}_{x/b}\text{Mn}_{2-x}\text{O}_{4+\delta}$ . Thackeray et al. (US 5,558,693) teach a non-aqueous electrolyte cell comprising a positive electrode material having a formula of  $\text{Li}_{2x}\text{MnO}_{2+x}$  wherein x is greater than or equal to 0 and less than or equal to approximately 0.2.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (703) 308-0766. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Dah-Wei D. Yuan  
December 28, 2002

  
Patrick Ryan  
Supervisory Patent Examiner  
Technology Center 1700